

Serial No. 10/533,062  
Amendment  
Responsive to Office Action dated October 9, 2007

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TAM-104  
APR 09 2008

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A system development method comprising:
  - a step of inputting program descriptions which define a plurality of devices by employing a Java program language capable of describing parallel operations;
  - a step of converting the input program descriptions into an intermediate expression;
  - a step of generating parameters which satisfy a real-time restriction, for the intermediate expression; and
  - a step of synthesizing circuit descriptions which are based on a hardware description language, on the basis of the generated parameters;

wherein the program descriptions define the devices on a single bus by using a run method of the Java program language, and define clock synchronizations of the device by using barrier synchronizations.

wherein in the run method, program codes which are to be executed in a thread constituting a multi-thread are described.
2. (Original) A system development method as defined in claim 1, wherein the intermediate expression is a member selected from the group consisting of a concurrent control flow flag, a temporal automaton with a concurrent parameter, and a temporal automaton with parameters.

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3. (Original) A system development method as defined in claim 2, wherein parametric model checking is performed for the parameter generation.

4. (Original) A system development method as defined in claim 3, wherein the real-time restriction is given by RPCTL.

5. (Canceled)

6. (Currently Amended) A data processing system comprising:  
a computer;  
said computer inputting program descriptions which define a plurality of devices by employing a Java program language capable of describing parallel operations, converting the input program descriptions into an intermediate expression, generating parameters which satisfy a real-time restriction, for the intermediate expression, and synthesizing circuit descriptions which are based on a hardware description language, on the basis of the generated parameters;

wherein the program descriptions define the devices on a single bus by using a run method of the Java program language and define clock synchronizations of the devices by using barrier synchronizations;

wherein in the run method, program codes which are to be executed in a thread

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constituting a multi-thread are described.

7. (Canceled)